AMENDMENTS TO THE CLAIMS

Please add or amend the claims to read as follows, and cancel without prejudice or disclaimer to resubmission in a divisional or continuation application claims indicated as cancelled:

1. to 11. (Cancelled)

12. (Currently Amended) A method of transmitting video images, comprising:

providing a first video image frame;

compressing the first video image frame into a coarse portion~~, which has, for at least one color component,~~ having a bounded difference from ~~the provided image, for~~ a set of ~~the~~ pixels of the first video image frame;

representing the difference between the coarse portion and the pixels of the provided first video image frame by a refinement portion in value form;

mapping the coarse portion and at least part of the refinement portion into symbols of a constellation, such that spatial proximity between two symbols, each of which two symbols is associated with a different respective refinement value, is related to a numeric proximity between the respective refinement values; and

transmitting the mapped symbols to a receiver.

13. (Original) A method according to claim 12, wherein compressing the video image comprises compressing such that the difference between the coarse portion and the provided image is bounded for substantially all the pixels of the image.

14. (Original) A method according to claim 12, wherein compressing the video image comprises compressing such that the difference between the coarse portion and the provided image is bounded to have at most ten different possible values.

15. (Original) A method according to claim 12, wherein compressing the video image comprises compressing such that the difference between the coarse portion and the provided image is bounded to have at most five different possible values.

16. (Original) A method according to claim 12, wherein the difference between the coarse portion and the provided image is bounded by a maximal value which is less than 5% of the possible values of the provided images.

17. (Original) A method according to claim 12, wherein compressing the video image comprises compressing such that the difference between the coarse portion and the provided image is bounded for substantially all the color components representing the image.

18. (Original) A method according to claim 12, wherein mapping the portions comprises mapping the coarse and refinement portions separately into symbols and superimposing the symbols onto each other.

19. (Original) A method according to claim 18, wherein mapping the portions comprises mapping the refinement portion into symbols of a constellation having a side to side distance smaller than the distance between the symbols of a constellation of the symbols of the coarse portion.

20. (Original) A method according to claim 12, wherein the coarse portion is protected by a forward error correction code, while the refinement portion is transmitted without protection by a forward error correction code.

21. (Original) A method according to claim 12, wherein the refinement portion is mapped uncoded into symbols.

22. (Original) A method according to claim 12, wherein mapping the portions comprises mapping the refinement portion into a constellation having a discrete number of possible values.

23. (Original) A method according to claim 12, wherein transmitting the mapped symbols comprises transmitting over a multi-input multi-output MIMO link.

24. (Original) A method according to claim 12, wherein representing the difference between the coarse portion and the video image by a refinement portion formed of a plurality of refinement sub-portions, each of which has a smaller side to side constellation size.

25. (Original) A method according to claim 12, wherein the coarse and refinement portions together represent the video image in a non-compressed standard representation of color video with at most slight filtering.

26. (Currently Amended) A method of transmitting video images, comprising:

providing a first video image frame;

compressing the first video image into a coarse portion;

representing a difference between the coarse portion and a set of pixels of the first video image frame by a refinement portion in value form;

mapping the coarse portion and at least part of the refinement portion into symbols of a constellation, such that spatial proximity between two symbols, each of which two symbols is associated with a different respective refinement value, is related to a numeric proximity between the respective refinement values;

wherein the refinement portion is mapped uncompressed.

27. (Original) A method according to claim 26, wherein compressing the video image comprises compressing such that the difference between the coarse portion and the provided image is bounded for substantially all the pixels of the image.

28.(Original) A method according to claim 26, wherein mapping the portions comprises mapping the coarse and refinement portions separately into symbols and superimposing the symbols onto each other.

29. (Original) A method according to claim 28, wherein mapping the portions comprises mapping the refinement portion into symbols of a constellation having a side to side distance smaller than the distance between the symbols of a constellation of the symbols of the coarse portion.

30. (Original) A method according to claim 26, wherein transmitting the mapped symbols comprises transmitting over a multi-input multi-output MIMO link.

31. (Original) A method according to claim 26, wherein representing the difference by a refinement portion comprises determining for each pixel a difference between the coarse portion and the provided image and wherein each value of the refinement portion is related to at most 100 pixels of the image.

32. (Original) A method according to claim 26, wherein representing the difference by a refinement portion comprises determining for each pixel a difference between the coarse portion and the provided image and wherein each value of the refinement portion is related to at most 10 pixels of the image.

33. (Original) A method according to claim 26, wherein representing the difference by

a refinement portion comprises determining for each pixel a difference between the coarse portion and the provided image and wherein each value of the refinement portion represents a difference between the coarse portion and the provided image at a point on the image.

34. (Original) A method according to claim 33, wherein each value of the refinement portion represents a difference between the coarse portion and the provided image at a point on the image coinciding with a pixel.

35. (Original) A method according to claim 33, wherein at least one value of the refinement portion represents a difference between the coarse portion and the provided image at a point on the image interpolated for two or more neighboring pixels.

36. (Original) A method according to claim 26, wherein mapping the portions comprises mapping the refinement portion into symbols of a constellation having a bin for each of the possible values of the difference between the coarse portion and the provided image for a specific point on the image.

37. (Original) A method according to claim 26, wherein the refinement portion is mapped uncoded.

38. (Original) A method according to claim 26, wherein the refinement portion is mapped without undergoing a transform into a non-image domain.

39. (Original) A method according to claim 26, wherein the coarse portion is protected by a forward error correction code, while the refinement portion is transmitted without protection by a forward error correction code.

40. (Original) A method according to claim 26, wherein mapping the portions comprises mapping the refinement portion into a constellation having a discrete number of possible values.

41. (Original) A method according to claim 26, wherein mapping the portions comprises mapping the refinement portion into a constellation such that its value degrades gracefully with noise.

42. (Currently Amended) A method of transmitting video images, comprising:

providing a first video image frame;

compressing the first video image frame into a coarse portion, having a first average number of bits per pixel;

representing the difference between the coarse portion and a set of pixels of the first video image frame by a refinement portion in value form, having an average equivalent bit rate requiring a greater number of bits per pixel, for representation, than the first average number;

mapping the coarse and refinement portions into symbols of a constellation, such that spatial proximity between two symbols, each of which two symbols is associated with a different respective refinement value, is related to a numeric proximity between the respective refinement values; and

transmitting the mapped symbols to a receiver.

43. (Original) A method according to claim 42, wherein the refinement portion is not represented by bits.

44. (Original) A method according to claim 42, wherein the refinement portion has a predetermined number of values for each symbol.

45. (Original) A method according to claim 42, wherein compressing the video image comprises compressing such that the difference between the coarse portion and the provided image is bounded to have at most ten different possible values.

46. (Original) A method according to claim 42, wherein mapping the portions comprises mapping the coarse and refinement portions separately into symbols and superimposing the symbols onto each other.

47. (Original) A method according to claim 42, wherein representing the difference by a refinement portion comprises determining for each pixel a difference between the coarse portion and the provided image and wherein each value of the refinement portion is related to at most 10 pixels of the image.

48. (Original) A method according to claim 42, wherein the coarse portion is protected by a forward error correction code, while the refinement portion is transmitted without protection by a forward error correction code.

49. (Original) A method according to claim 42, wherein the average equivalent bit rate of the refinement portion requires for representation at least twice the number of bits from the first average number.

50. (Currently Amended) A method of transmitting video images, comprising:

providing a first video image frame;

compressing the first video image frame into a coarse portion, using a near lossless compression method achieving less than a 15:1 compression ratio;

representing the difference between the coarse portion and a set of pixels of the first video image frame by a refinement portion in value form;

mapping the coarse and refinement portions into symbols of a constellation, such that spatial proximity between two symbols, each of which two symbols is associated with a different respective refinement value, is related to a numeric proximity between the respective refinement values; and

transmitting the mapped symbols to a receiver.

51. (Original) A method according to claim 50, wherein mapping the portions comprises mapping the coarse and refinement portions separately into symbols and superimposing the symbols onto each other.

52. (Original) A method according to claim 51, wherein mapping the portions comprises mapping the refinement portion into symbols of a constellation having a side to side distance smaller than the distance between the symbols of a constellation of the symbols of the coarse portion.

53. (Original) A method according to claim 50, wherein compressing the video image comprises compressing with a compression ratio of less than 8:1.

54. (Original) A method according to claim 50, wherein compressing the video image comprises compressing with a compression ratio of less than 12:1.

55. (cancelled) A method of transmitting data, comprising:

generating a plurality of streams at least partially carrying data which gracefully degrades with noise;

transmitting the plurality of streams in parallel through a MIMO transmitter; and

receiving the plurality of streams by a MIMO receiver.

56. (cancelled) A method according to claim 55, comprising decoding the plurality of symbol streams by the MIMO receiver.

57. (cancelled) A method according to claim 56, wherein the MIMO receiver uses a spatial Winner filter to decode the streams.

58. (cancelled) A method according to claim 55, wherein the streams include analog streams.

59. (cancelled) A method according to claim 55, wherein the streams include symbol streams that at least partially have a representation of data along a continuous analog range.

60. (cancelled) A method according to claim 55, wherein the streams include symbol streams that at least partially are selected from a constellation in which closer bins have closer values.

61. (cancelled) A method according to claim 55, wherein the streams include symbol streams that represent an overlap of coarse and refinement portions.

62. (cancelled) A method of receiving data, comprising:

receiving transmitted MIMO signals using a plurality of antennas including at least one antenna more than used in transmitting the signals;

determining from the signal of at least one of the receiver antennas a noise level of a link on which the signals are received; and

instructing the transmitter to change a transmission parameter responsive to a determination that the noise level is above an allowed level.

63. (cancelled) A method according to claim 62, comprising decoding the signals using the received signals.